Bush Declaration Ex. A

TX 5183

Android

OC Quarterly Review – Q1 2009

Andy Rubin, Hiroshi Lockheimer, Patrick Brady, Erick Tseng, Jennie Ebbitt, Michael Morrissey, Eric Chu, Danielle Romain, Marc Vanlerberghe

Summary

- Budget actuals lower than plan
- Deployments exceeding plan
  - 7 countries
  - 13 languages
  - 19 design wins!
- Marketshare at 6% of mobile browsing
  - Ahead of Blackberry, Palm
  - Roughly equal to Windows, Symbian
- Search RPM is $22.70
  - Usage of search widget key contributor
- Three prong strategy working
  - Organic, Unbundled and Google Experience: All have customer traction
- Pain points: Scaling, hiring, UI, ecosystem
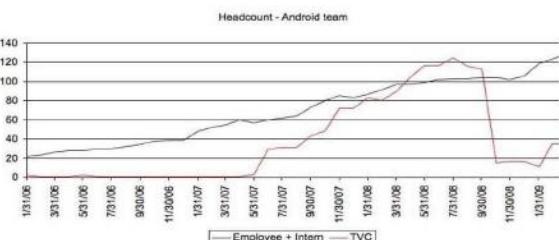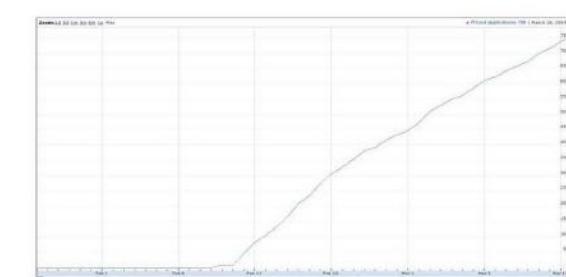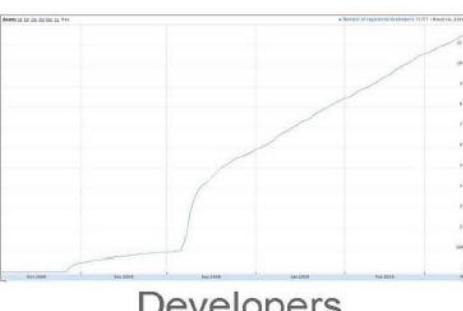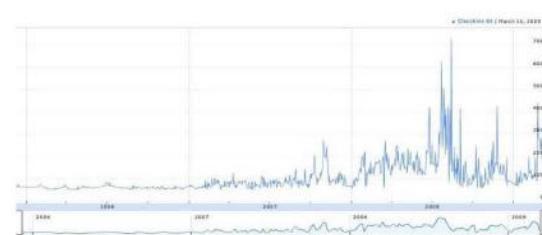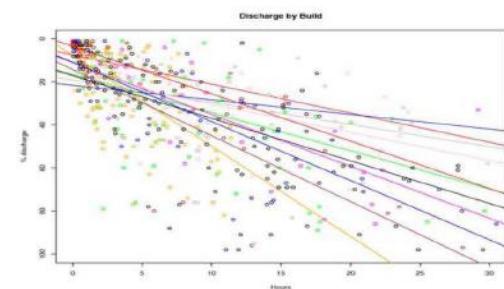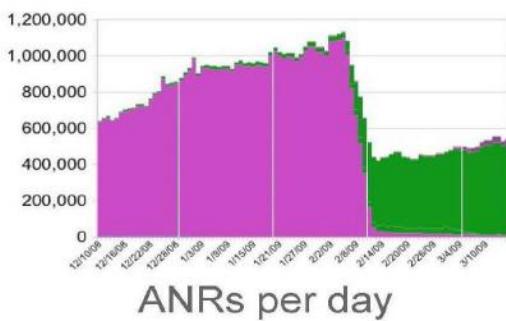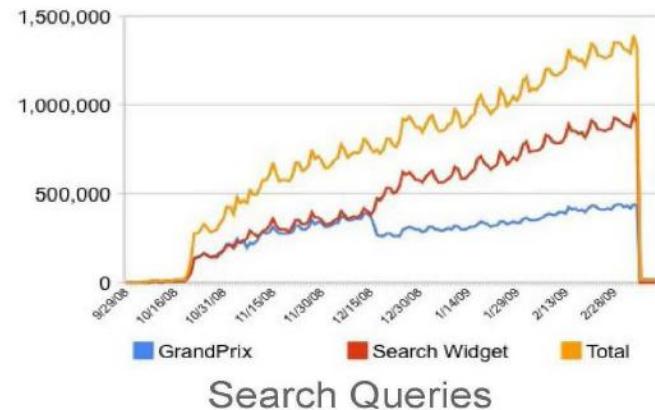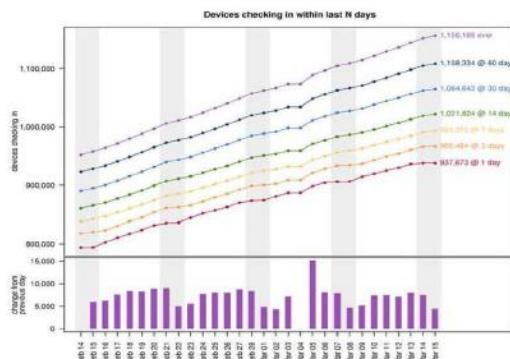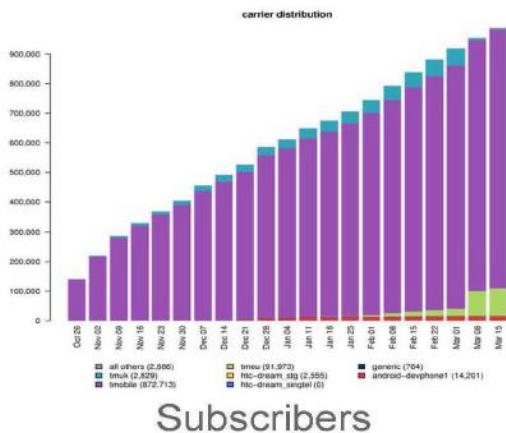
Health Check

Subscribers

7 day active

Search Queries

ANRs per day

Battery life improvements

Check-ins over time

Developers

Paid Apps

Headcount

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GOOGLE-01-00136053

Google

OKRs

'09 Focus is on scale

- 20M Android-powered devices by EY09

Q1 '09

- Cupcake release launched
- Significant latency and battery life improvements
- Improvements to UI (polish)
- Improvements to camera/video
- Photos mirrored
- Launch new device

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Product Update (Erick Tseng)

Google

1 Million Devices Sold in First 4 Months

Devices checking in within last N days

- 1,151,795 ever
- 1,104,812 @ 60 days
- 1,062,074 @ 30 days
- 1,018,996 @ 14 days
- 990,578 @ 7 days
- 965,953 @ 3 days
- 937,770 @ 1 day

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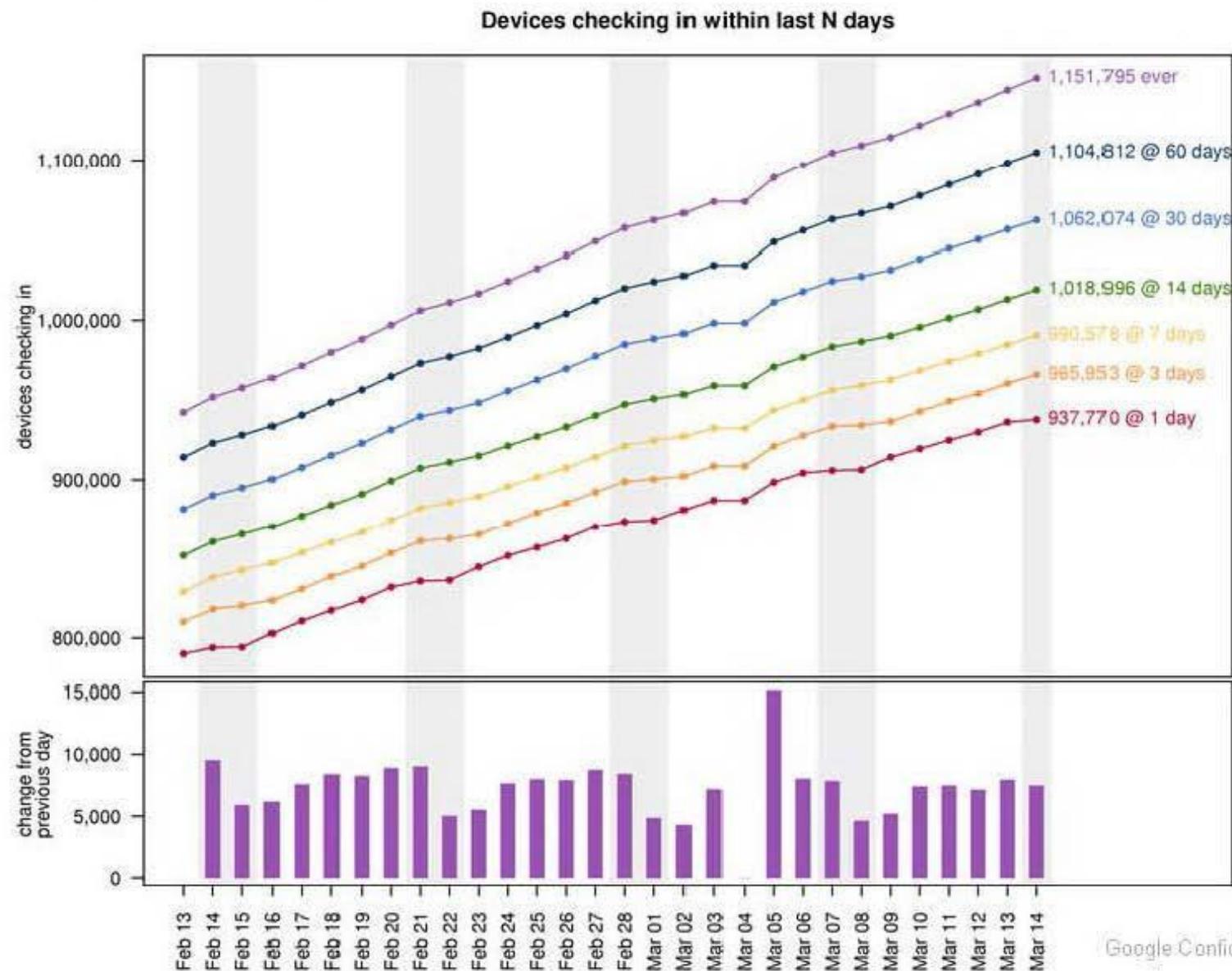
92% of Android 7-Day Actives Use Gmail

Google

Other Apps
- Maps: 80%
- Marketplace: 68%
- YouTube: 61%
- StreetView: 11%
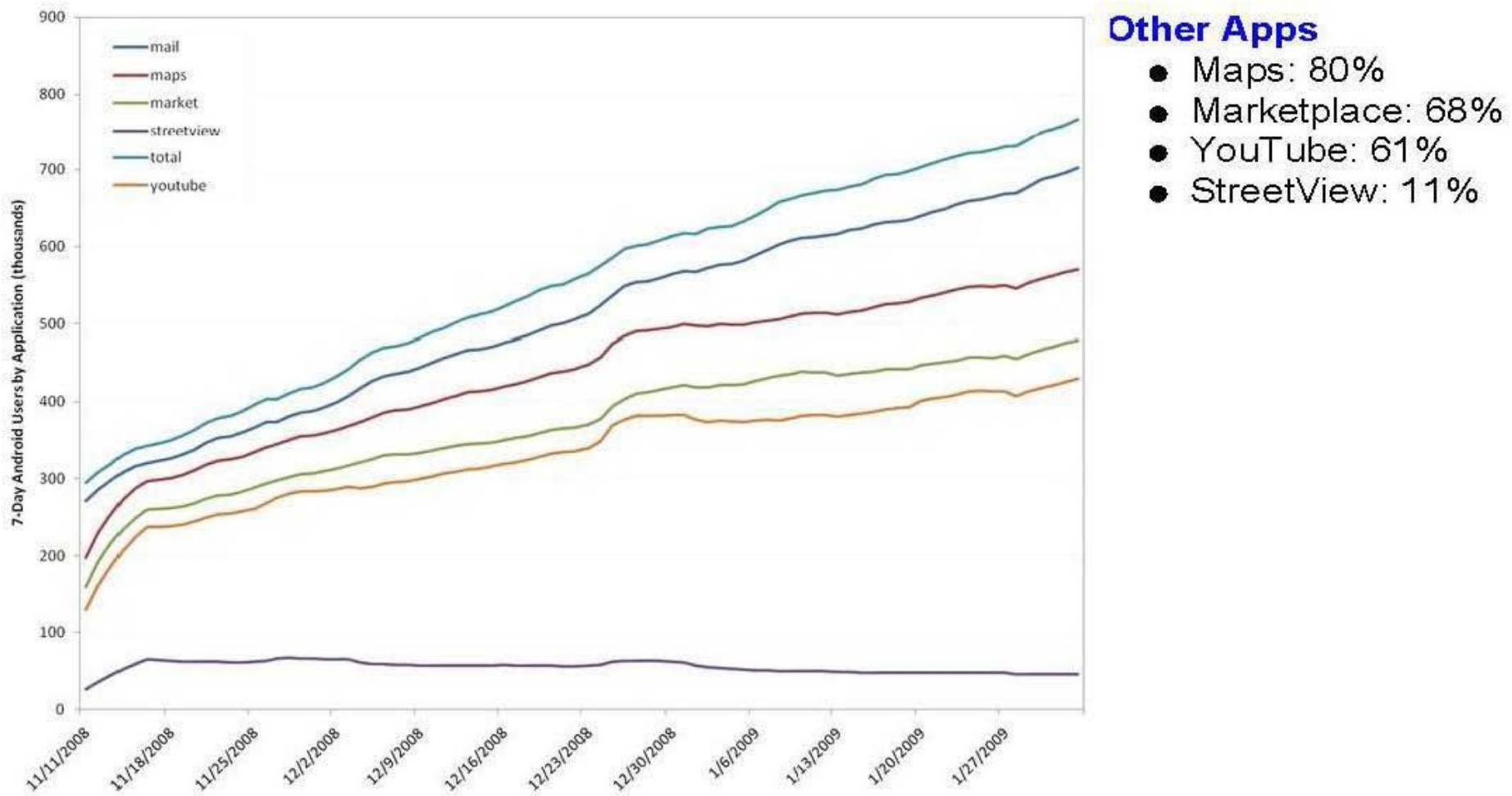
¹ Source: Android Dashboard (3/16/2009), https://dash/mobile/generic_product_overview.php?
daterange=99999&pagename=android&showEventsTable=false

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Search + Android = Huge

Google

Unique search users

- 30 day user
- 7 day user
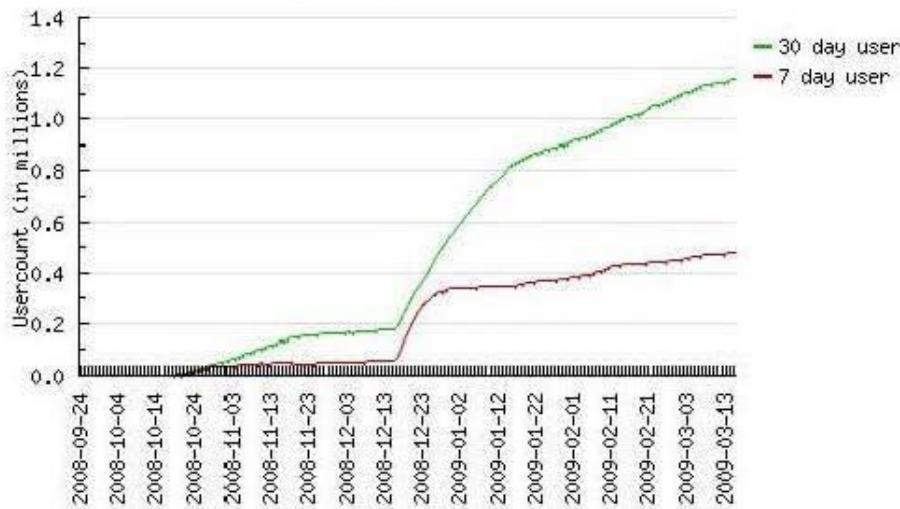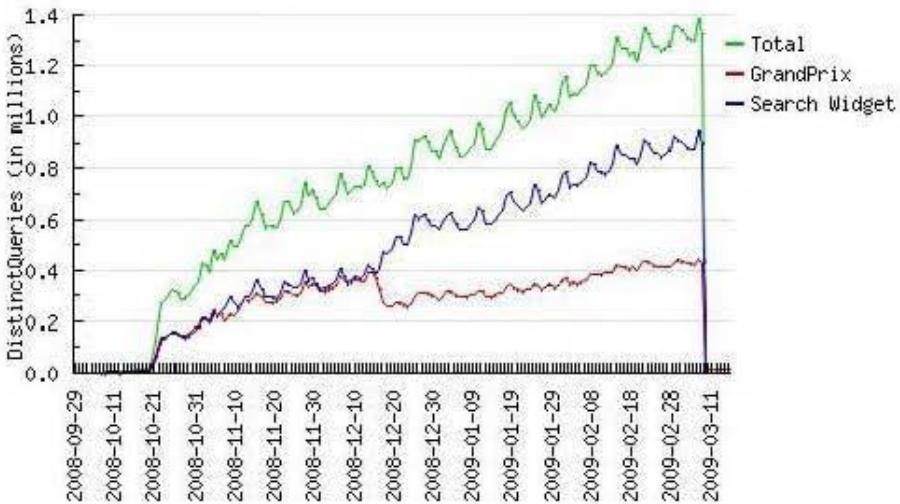
- **Nearly 100%** of our users have searched in the last 30 days
- **43% of our users** have searched in the last 7 days

Search queries

- Total
- GrandPrix
- Search Widget

- **Speed matters**: 70% of all searches are initiated from Android search framework, rather than google.com website

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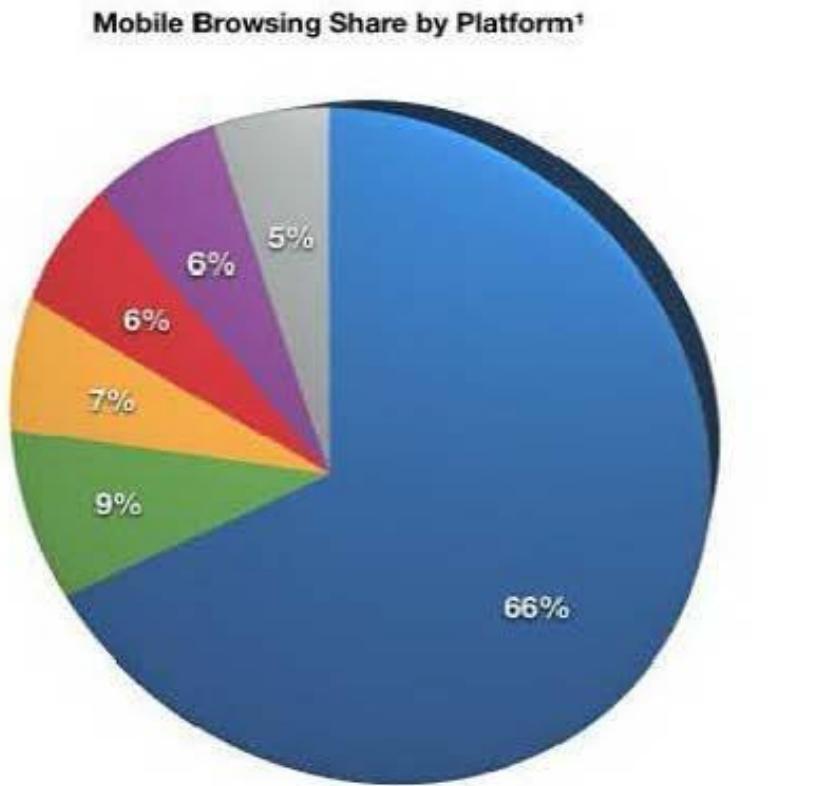
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Mobile Browser Share

Google

Mobile Browsing Share by Platform[1]

- iPhone 66%
- Java ME 9%
- Windows Mobile 7%
- Android 6%
- Symbian 6%
- Other (Palm, Blackberry, BREW) 5%

Legend:
- iPhone
- Android
- Java ME
- Symbian
- Windows Mobile
- Other (Palm, Blackberry, BREW)

[1] Source: Net Applications Q4 2008 Mobile OS Market Share report.
URL: http://marketshare.hitslink.com/mobile-phones.aspx?qprid=55

- Android reached 6% mobile browsing share **4 months** after launch

- Symbian reached the same milestone in **10 years**

- AdMob processed **48M ad requests** in February, the first month they launched Android ads

- In comparison, AdMob processed 50M ad requests the first month it launched iPhone ads last August

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Product Roadmap (1/2)

- **Cupcake (Q2 2009)**
  - On-screen QWERTY keyboard
  - Video record and playback
  - YouTube uploads and "My Account"
  - Picasa Upload
  - Improved camera
  - Homescreen widgets
  - Stereo Bluetooth/A2DP
  - Browser Omnibox
  - Pervasive IM presence
  - New in-call keypad/timeout UI
  - Improved battery life
  - Framework refresh

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Product Roadmap (2/2)

- Donutburger (Q3 2009)
  - Phone top "universal" search
  - Gesture shortcuts
  - Camera/Photos update
  - Enterprise features: VPN, IPSec
  - Backup settings and bookmarks to the cloud
  - Market update: 3rd party billing, "Share this app"
  - Integrate V8 engine in browser
  - Text to speech engine
  - App Fuel Gauge: for better battery mgmt
  - Live Wallpaper
  - DPI support
  - CDMA
- Eclair (Q4 2009)
  - All new user interface
  - Vector Maps with turn-by-turn directions
  - Augmented reality navigation
  - ActiveSync/Exchange support
  - Calendar update (view/add attendees)
  - Support for multiple accounts
  - Unveil: image recognition and OCR
  - Flash 10

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Google
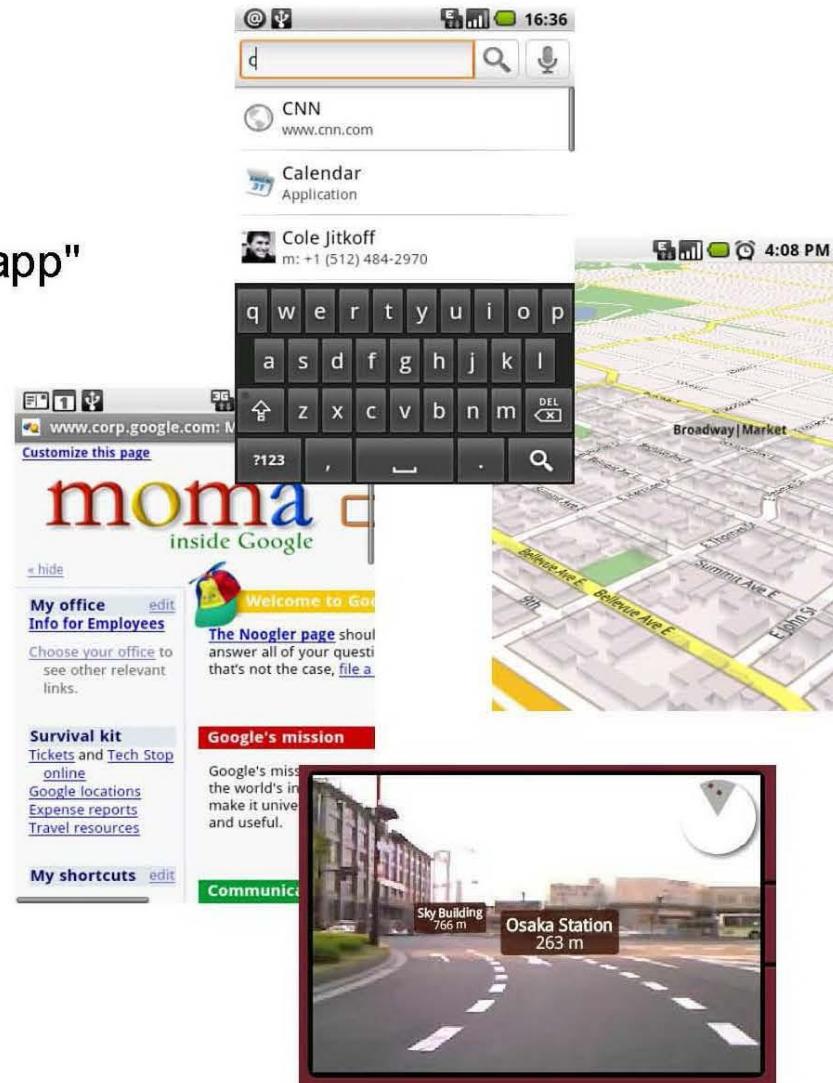
Product Challenges

- Scaling to meet usage goals: 20M users by end of 2009
- Continuing to innovate killer apps
- Multiple product configurations
- Fragmentation
- iPhone: 72 countries, 3.0 Firmware
- Market: quantity (2K apps vs. iPhone's 25K apps) and quality
- Innovating a next generation UI

Worldwide smartphone market share (Q4 2008)

- Other, 1%
- Android, 2%
- Linux, 4%
- Apple, 12%
- Microsoft, 14%
- RIM, 20%
- Symbian, 48%

Source: Canalys, smartphone analysis, Q4 2008
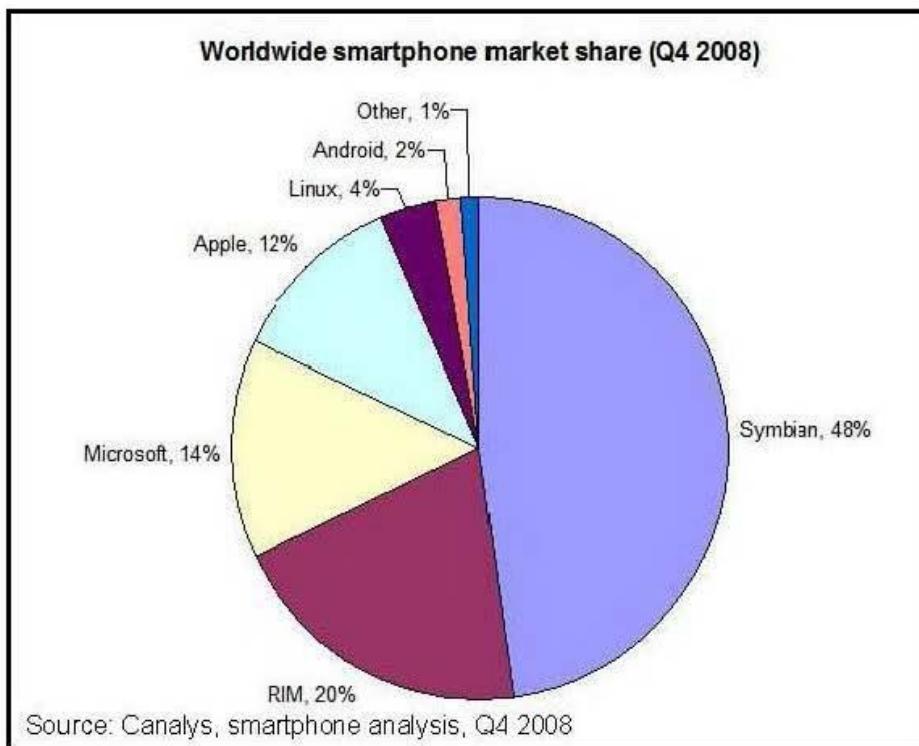
Engineering Update (Hiroshi Lockheimer)

Google

Dissecting the roadmap: Deployment vs. Innovation

'09 Releases	Deployment	Innovation
Cupcake (April)	- Touch-only form-factor (Voda, DoCoMo, T-Mobile US) - Perf (updated WebKit), battery life - UI refresh	- Bluetooth stereo headset - Video record (and playback), including YT upload - Picasa integration - Home screen gadgets
Donutburger (July)	- DPI support (WVGA, QVGA, new form-factors) - CDMA plumbing - Perf (V8?), battery life (new sync protocol)	- Universal Search - Gesture shortcuts - Cloud backup (settings, bookmarks) - Active wallpapers - TTS
Eclair (October)	- Holiday '09 Google Experience Devices (Verizon, TMUS) - HW accelerated graphics, 3D	- Next generation UI

Deployment vs. Innovation = Platform vs. Product (balancing Google's needs and ecosystem requests)

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Google

Engineering Update (cont'd)

Organization
- Before: ~70 direct reports
- Now: ~20 direct reports, 9 teams
- Focus on: scale, communication, accountability

Challenges
- Deployment vs. Innovation, Platform vs. Product
- Dates, dates, dates
  - Upfront release planning
  - Parallel development
- Hiring (*filling* reqs, not reqs)
  - Bringing core innovation back in house (app, UI developers)

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Android Services (Michael Morrissey)

Not a single service, but a collection of 7 services which rely on caribou, doozer, focus, buzz, youtube, checkout, kansas, gaia, megastore, blobstore, st, zipit, goops, chubby/svelte, cart, crash2, cdd...and all the services they rely on

Footprint
- Frontends in 4 DCs (Oregon, Atlanta, East, Belgium)
- Backends in 3 DCs (Iowa, Atlanta, East)
- Need to expand into Europe & Asia to match deployments
- Projected resource spend for 2009: $586K

Scalability issues
- Must greatly improve FE machine utilization
  - Only 20k connections/machine at present
  - Bin-packing with Buzz to increase capacity
- Move FE machines out of CLIBs where machines are scarce

Challenges
- Dependency management for other Google services
- Handling carrier networking issues
- Hiring -- particularly for Market

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Android P&L

Google

amounts shown in $ millions		Q3	Q4	FY 2008	Annual Plan				
					Q1	Q2	Q3	Q4	FY 2009
Gross Revenue	$	0.0 $	0.7 $	0.7 $	2.4 $	2.2 $	3.6 $	5.1 $	13.3
TAC		0.0	0.2	0.2	0.5	0.5	0.8	1.2	2.9
Net Revenue	$	0.0 $	0.5 $	0.5 $	1.9 $	1.7 $	2.8 $	3.9 $	10.4
Net Margin		N/A	73%	73%	81%	78%	77%	77%	78%
Q-O-Q Growth					252%	-8%	61%	40%	
Operations		0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3
Other COS		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	$	(0.1) $	0.4 $	0.3 $	1.8 $	1.7 $	2.7 $	3.8 $	10.0
Gross Margin		N/A	59%	46%	77%	74%	75%	76%	75%
Direct Expenses									
Sales		0.2	0.3	0.9	0.5	0.5	0.5	0.5	2.1
Marketing		0.1	12.1	12.3	13.0	7.8	7.8	7.8	36.3
PM		0.0	0.0	0.0	0.3	0.3	0.3	0.3	1.1
Engineering		29.2	18.4	86.3	17.5	15.6	13.1	13.3	59.5
G&A		0.3	0.3	1.0	0.3	0.3	0.3	0.3	1.1
Product Contribution	$	(29.9) $	(30.5) $	(100.3) $	(29.7) $	(22.8) $	(19.3) $	(18.4) $	(90.1)
Contribution Margin		N/A	-4,122%	-13,547%	-1,260%	-1,021%	-532%	-361%	-678%
Headcount									
Sales				6					10
Marketing				0					2
PM				3					5
Engineering (SWE, Test, Tech Writers, UX)				109					141

Handset Volumes Drive Revenue Growth

- Goal: ship 20 million Android enabled handsets by year-end 2009
- Search widget and browser search box drive 80% of Android revenue (est. $10.6 million)
  - TAC rate 24 - 32%
- Organic revenue contributes an addition $2.7 million

Carrier Adoption, Co-Branding

- Adding carriers in Japan and EMEA during first half 2009. China in late 2009
- Focus on developing partnerships with mass carriers (+50 million subscribers)
  - $10 million per co-branding deal, contingent upon data plan guarantees

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Search Stats

Android and iPhone queries are similar in length.
(Android: 2.73 iPhone: 2.8)

Android users trigger spell correct *less* often that iPhone users.
(Android 10.54% iPhone 12.89%)

iPhone query categories and Android query categories are similar.
(Android users issue less sports queries than iPhone users, but issue more Online Communities queries).

Android users query more often than iPhone users per day.
(Android: 6.69 iPhone 5.44 avg queries per week)

Source: Maryam Kamvar: Search Log Analysis

Theme: Monetization (Erick Tseng)
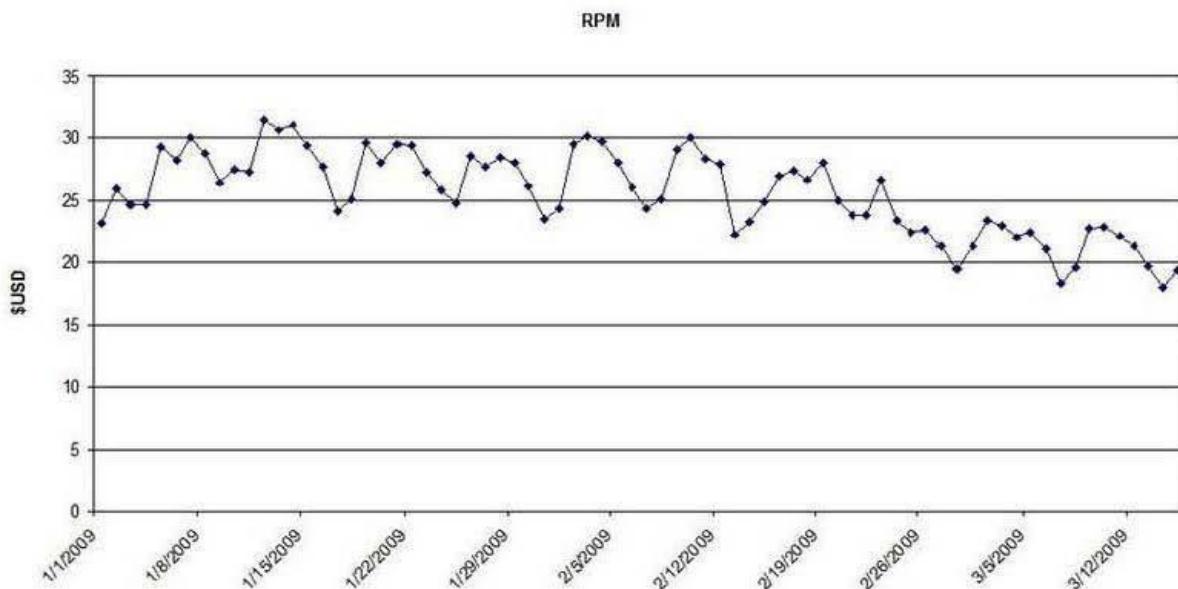
- Android RPM: $22.70
- iPhone RPM: $15.10
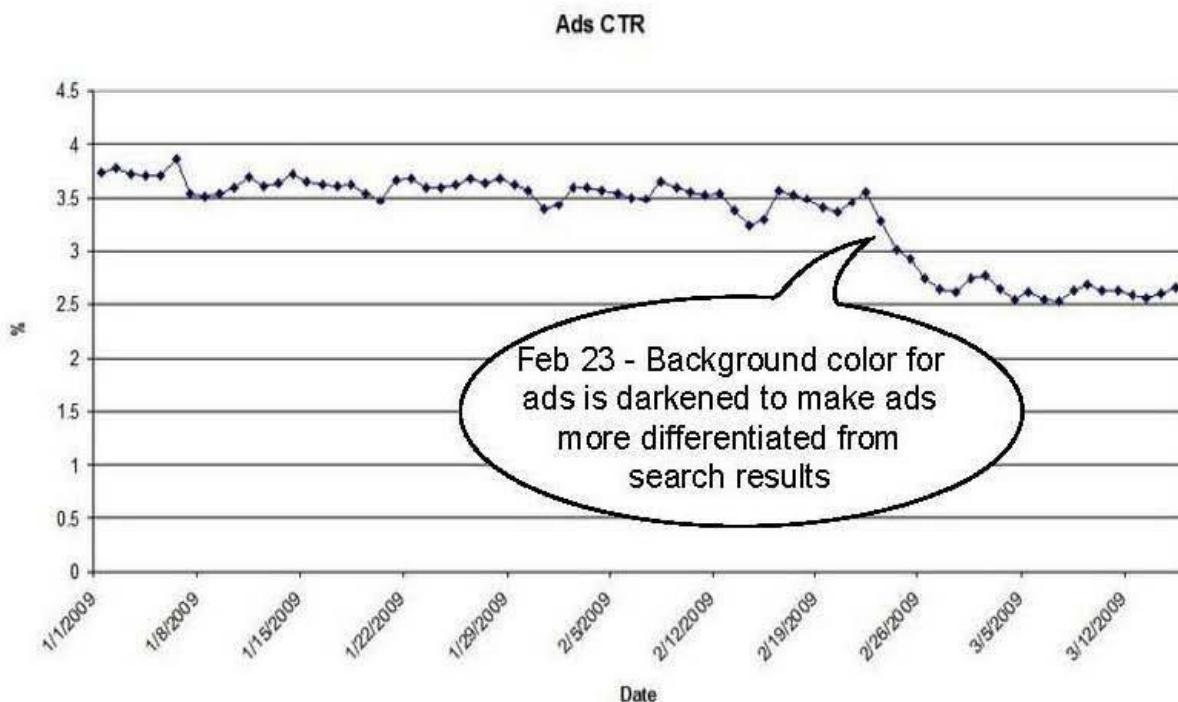
- Android CTR: 2.6%
- iPhone CTR: 2.2%

Feb 23 - Background color for ads is darkened to make ads more differentiated from search results

Theme: Scale (Jennie Ebbitt & Patrick Brady)

Google

| GOOGLE EXPERIENCE	Unbundled GMS + Android OS	Other key Android deals:

• T-Mobile: Amendment negotiations underway
 	
 • Singtel/Optus: Completed
 	
 • Vodafone (5 Op Cos): Completed
 	
 • Docomo: DA negotiations underway
 	
 • Verizon: Term sheet negotiations underway
 	
 • CMCC: Working with CMCC OEMs
 	
 • China Unicom: Exploratory
	• OEM pipeline
	    o HTC
	    o MOT
	    o Dell
	    o Samsung
	    o SEMC
	    o ASUS
	    o LG
	    o Lenovo
	    o Acer
	    o Quanta
	    o Kyocera
	    o Huawei
	    o Sharp
	    o Toshiba
	    o Panasonic
	    o NEC
	    o Inventec
	    o Foxconn
	 • Android Market for Operators:
	    o Sprint
	    o Rogers
		• Paypal for Android market
		
		 • AMDOCS for Carrier Billing
		
		 • SVOX: text to speech
		
		 • ASUS: Google device
		
		 • Android everywhere
		    o Android for TV discussions w/ Ben
		    o Android for netbook discussions w/ Sundar

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Theme: Scale (cont'd)

Google

Represents current plans. Not all launches confirmed.

	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009
Dell and others				🔵 🔵	🔵 🔵
LGE				🔵	🔵
Sony Ericsson					🔵
Motorola				🔵 🔵	🟢
Samsung			🟢	🔵	🔵 🔵
HTC	🟢	🟢 🟢 🔵	🟢 🟢 🟢	🔵 🔵 🔵	🔵 🔵

🔵 : "un-bundled GMS" device   🟢 : "Google experience" device

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Trial Exhibit 5183, Page 19 of 97

Theme: Scale (cont'd)

Google

Represents current plans. Not all launches confirmed.

T-Mobile US launch
Q4 2008

T-Mobile EU launch
Q1 2009

Vodafone launch
Q2 2009

CMCC launch
Q2 2009

Rogers launch
Q2 2009

Verizon launch
Q3 / Q4 2009

DoCoMo launch
Q2 2009

Sprint launch
Q3 2009

TIM, Telefonica, Orange
Q1 2009

MTN launch
Q1 / Q2 2009

SingTel, Optus
Q1 2009

Google Experience

Unbundled w/ GMS

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Google

Theme: Ecosystem (Eric Chu)

- **Marketplace Stats**
  - 2k SDK downloads per day with 13k 7-day active
  - 11k+ Developers with 2,700 apps; 1/3 paid apps
  - 43+ mil downloads with 85% users downloaded min. 1 app

- **What's working**
  - Android Market one of top 3 apps on phone
  - Android is one of top 3 platforms for developers

- **Key Challenges**
  - Paid apps download extremely low; 72k purchases so far
  - Billing cost too high for apps price point below $3.00
  - Difficult to operate, expand, & enhance service with current resource level
  - Short term difficulties in competing with iPhone for developer mindshare

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Theme: Ecosystem (cont'd)

- **OHA Status**
  - 47 Members - 9 carriers, 9 device manufacturers, 13 Semiconductor companies,10 software companies, & 6 commercialization companies
  - With the exception of Nokia, Apple, & RIM, everyone is investing in Android deployments

- **What's working**
  - Market relevance achieved
  - Many companies want Google + Android = Google Experience Devices

- **Key Challenges**
  - Need strong "stewardship" to remain agile while preventing fragmentation
  - Difficult to both move fast and involve partners in evolution of Android

Theme: Marketing (Marc Vanlerberghe)

Google

- **Key Insights**
  - When carriers commit serious marketing resources, sales follow. But the reverse is true as well.
  - Carriers want Android + Google experience.
  - Google's ability to generate sales leads is unmatched.

- **What's working**
  - 'with Google' branding as negotiation lever for better data plans.
  - Co-marketing $ creates leverage and buys influence in campaign strategy and execution.
  - Scaling of marketing approval process.

- **Key Challenges**
  - Lack of differentiation between GED and non-GED w/ GMS could lead to consumer confusion and carrier frustration.
  - Increased dependency on partners for direct-to-consumer marketing
  - Small marketing team handling increasing number of launches and partnerships.

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Theme: Marketing (North America Launches)

North America

1- T-Mobile G1: US Campaigns

Sustaining buzz and driving continued sales of the G1 in the US

- o Sales: **~1MM phones sold to date**.
- Glowing Reviews ATL campaign:
  - o Highlighting selected quotes from popular sources (Time, Vibe, GQ).
  - o Major continued investment from TMO-US, no additional $$ cost to Google.
  - o Mass media activities: TV, Billboards, Print
  - o TV: Feb' 25th - April 12th (plans to expand until July). 11 major US metros. 735MM impressions, 84.5% Reach.
  - o Online and POS will highlight some new Google Apps: Latitude, Search By Voice, My tracks
- MTV Cancun Spring Break co-branding. March 7th-27th
  - o Featured device on 'The Real World' show. (Airing in June)
  - o "G1 Terraza" where spring break students interact with the G1. 200 G1 giveaways for trend-makers.

2- Upcoming Launches and Partnerships

- T-Mobile US: Preparing to launch the **HTC Sapphire** in July. Announcement and pre-sales in mid-June.
  - o Google Experience Device.
  - o Hero device for Back to School window: Major marketing push and 'with Google" branding,
- Rogers: Launching both Dream and Sapphire
  - o Launching both Dream and Sapphire in Q2
  - o Non Google Experience Devices
- Early engagements with Motorola (Verizon device) and Sprint.

T-Mobile G1: Glowing Reviews Campaign

T-Mobile G1 commercial "Glowing Reviews"

T-Mobile G1: MTV Cancun Spring Break

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